SPAWAR

Today's Event

Welcome to the SPAWAR / Industry Executive Network (SIEN)

Monday 6 March 2006
Admiral Kidd Club

SPAWAR

Today's Agenda

1530	Introduction	RADM(ret.) Wagner
1535	Welcome	RADM(s) Bachmann
1545	PEO C4I & Space	Andrew Cox
1630	JPEO JTRS	Vic Popik
1655	Open Q&A	All
1700	Informal Reception	All

Today's Agenda

1530	Introduction	RADM(ret.) Wagner
1535	**Welcome**	**RADM(s) Bachmann**
1545	PEO C4I & Space	Andrew Cox
1630	JPEO JTRS	Vic Popik
1655	Open Q&A	All
1700	Informal Reception	All

SPAWAR

Upcoming Event

Joint AFCEA / NDIA Luncheon

1130 March 13, 2006
Sheraton Four Points on Aero Drive

Registration:
http://www.afcea-sd.org/Merchant2/merchant.mvc

Today's Agenda

1530	Introduction	RADM(ret.) Wagner
1535	Welcome	RADM(s) Bachmann
1545	**PEO C4I & Space**	**Andrew Cox**
1630	JPEO JTRS	Vic Popik
1655	Open Q&A	All
1700	Informal Reception	All

Outline

- PEO Focus Areas
- ASN RD&A Metrics
- QDR
- Funding
- Lead Systems Integrator (LSI) / Transition to Industry Primes (TIP)

PEO C4I and Space Vision and Mission

Vision: ***Be the Preeminent Provider of Transformational Network centric Warfare Capability Enabling Decision Superiority***

Mission: Acquire, Integrate, Deliver and Support Interoperable C4I & Space Capabilities Enabling Seamless Operations for Fleet, Joint and Coalition Warfighters

- Responsible for acquiring and sustaining Navy C4I capability
  - "Cradle-to-grave"
- Report directly to Service Acquisition Executive
- Oversight of 156 C4I programs/products
- Budget authority of ~ $2.1B
- Streamlined staff/disciplined execution
- Transforming acquisition

2006 Focus Areas

- Make our Organizational Precepts a Reality
  - New construction and capabilities Focus
- Improve Program Execution
  - Planning, installation, logistics and life-cycle support
- Implement a Complete C4I Integrated Roadmap
  - Full enablement of roadmap potential
- Achieve Greater Acquisition Results
  - Impact the process earlier
- Drive Consistency in System Engineering and Development
  - Transition to Industry Primes (TIP): contracting consistency
- Focus on the Business of Operating the PEO
  - Meaningful metrics, Lean/Six Sigma

ASN RDA Metrics

- **ASN RDA Metrics Scorecard**
  - **4 Focus Areas**
    - **Warfighter, Financial, Business Processes, People**
  - **8 Key Areas**
    - Global War On Terror (GWOT)
    - Shipbuilding
    - Aircraft Recapitalization
    - Enterprise Acquisition Test & Evaluation (T&E) (What Are Programs Delivering?)
    - Software Improvement
    - S&T And How It Translates To Programs
    - Workforce Development
    - Acquisition Enterprise Model
- **ASN RDA Website has data on Metrics and Roadmaps**

*Data and Metrics from **PMW Assessment** was used to report to ASN RDA*

QDR Themes

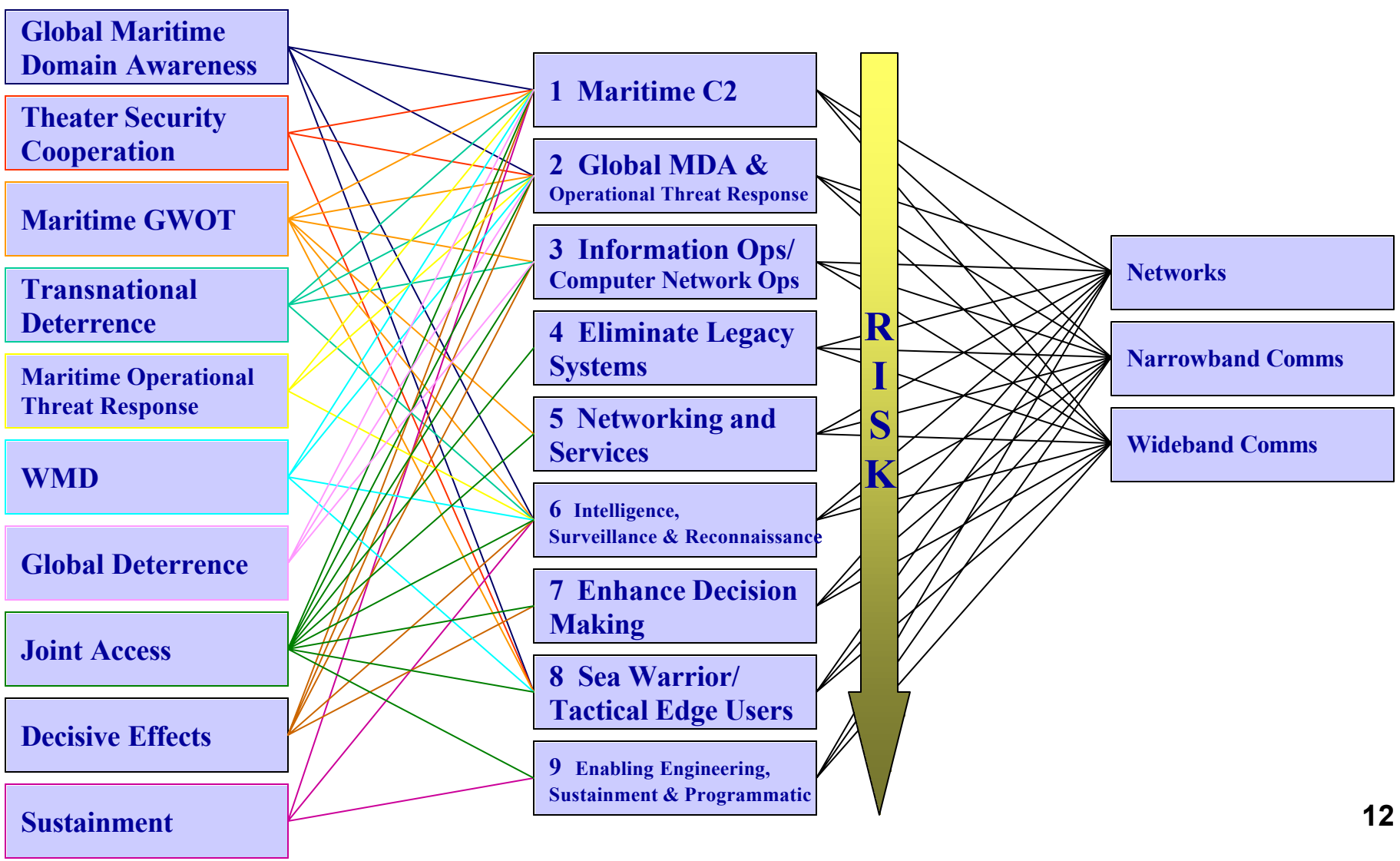
- Identify, track, and intercept threats before they threaten the United States
- Joint Maritime Forces
  - Highly distributed operations with a networked Fleet
- Exploit the operational flexibility of Sea Basing
- Greater Fleet presence in the Pacific Ocean
- Increase number of available independent strike groups from 19 to 36
- Obtain higher readiness throughout a units operation cycle

QDR Maritime Way Ahead

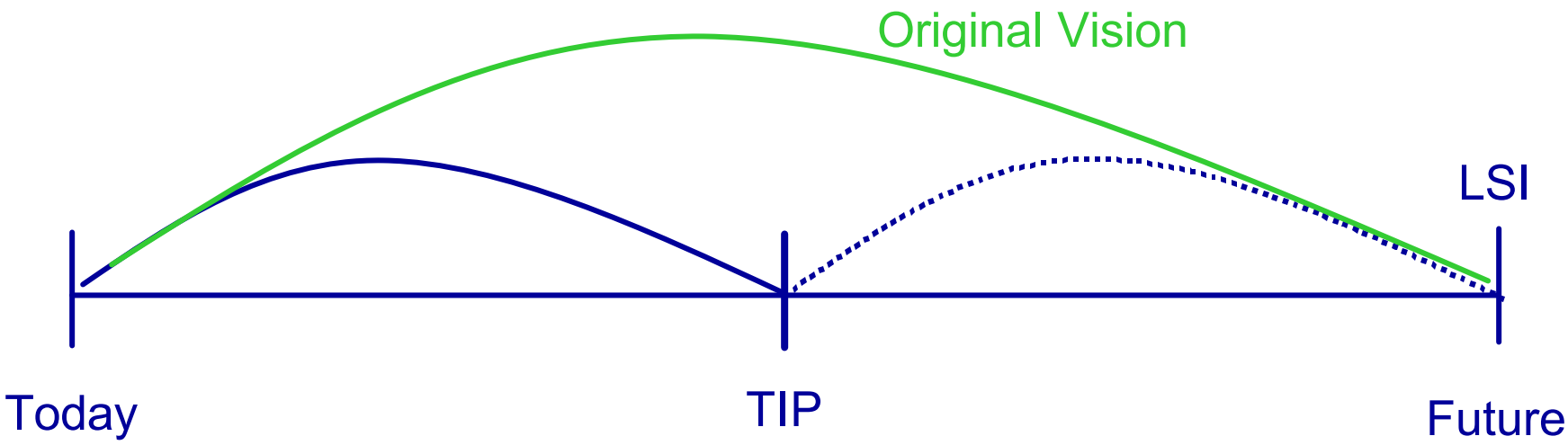
- Build a larger Fleet that includes 11 Carrier Strike Groups
- Accelerate procurement of Littoral Combat Ships
- Procure the first eight Maritime Pre-Positioning Ships (future)
- Provide a Navy riverine capability

New Ship Construction requires Integrated C4I Capability

Mapping Investments



LSI / TIP Background



- *TIP* represents a significant paradigm shift and will take some time to fully implement; we're taking a cautious, methodical approach

The Goal is to Maximize Our Ability to Develop and Deliver Integrated C4ISR Capability to the Fleet

Why TIP?

- It Makes Good Business Sense
  - Allows for better management of cost, schedule, and performance through use of incentives
  - Enables broader “best value” options by fostering and rewarding industry innovation
  - Facilitates use of performance based strategies for acquisition and sustainment
- Consistent with Statutory and Regulatory requirements
  - Competition (USC 10 & 41, DoD 5000)
  - Commercial sources for supply/services (FAR 7.301)
  - Promote commercial/NDI acquisition (USC 10 & 41)

Government Steers the Solution….
Industry Builds It

Progress to Date

- We have developed a draft set of Guiding Principles for implementing TIP
- Our next steps will be to
  - Refine our POA&M for PEO-wide TIP implementation
  - Identify candidate programs for TIP
  - Assist Program Offices in implementing TIP processes
  - Develop a compliance assessment and reporting process

Applicability – General

- All funded efforts managed by PEO personnel shall be evaluated for TIP candidacy
- Program Managers will select appropriate transition points
- TIP *must* be considered
  - During Milestone or FRP Decision Reviews
  - Prior to initiating post-production modifications
  - For all efforts requiring an Acquisition Plan (total costs >$5M RDT&E or >$15M Procurement)

Applicability – General

- Program Managers electing not to transition to TIP shall document that decision via memorandum to the PEO
- TIP is not required for
  - Inherently Governmental Functions
  - Micro-purchases (<$2.5K)
  - Simplified Acquisition (<$100K)

Role of Echelon III

- Technical Authority / Technical Oversight
- System architecture and technical standards
- Systems Engineering (Cross Domain, end-to-end)
- Innovation (includes S&T, working with ONR, DARPA, academia, FFRDCs, and small business)
- Technology transition (including roadmaps, technology readiness assessments)
- Experimentation (DODAF, Concepts, prototypes, CONOPS)

Role of Echelon III (cont.)

- Test & Evaluation, including networked Lab and test infrastructure
- IV&V
- Installation accountability (planning, oversight, Fleet/SYSCOM coordination, and acceptance)
- In-service engineering support (Maintain long-term corporate technical knowledge/skills)
- Certain ILS Functions (depending on situation may include training support, logistics planning support, compliance verification, just-in-time fleet support)
- Quick reaction capability

TIP Guiding Principles

- Government Ownership
- Use of Common Products
- Data Delivery Considerations
- Logistics
- Configuration Management
- Modularity and Openness

In Draft form – Available NOW!

Government Ownership

- Under TIP, the Government will
  - Retain Government Purpose Rights for items developed with Government funding
  - Use NESI* to develop contract clauses and CLIN structures regarding source code
  - Maintain an IV&V environment separate from a Prime's facilities
- Solicitations will be structured and preference given to those offerors who provide full data rights and mechanisms that eliminate proprietary features
- Use of SSC facilities as GFE or via Private-Public Agreements is encouraged

*Net-Centric Enterprise Solutions for Interoperability

Use of Common Products

- TIP will maximize use of common C4I products
  - Hardware Platforms
  - Network Infrastructure
  - Software
- Program Managers may elect to do this via
  - Provision of GFE
  - Preferred Products Lists*
  - Employing Directed Products (requires justification)

*Compliance may be used as proposal evaluation criteria

Data Delivery Requirements

- TIP contracts will address system security requirements
  - DITSCAP (DIACAP)
  - DCID 6/3
  - Other applicable directives
- CDRLs/DIDs will specify data delivery to support
  - Certification and Accreditation activities
  - SSAA, IATO and ATO development/preparation
- International Programs must follow ITAR requirements
- IETMs shall incorporate established HSI principles
- Contracts will ensure delivery of data to support
  - Integrated Logistic Assessments and Certifications
  - SHIPMAIN
  - Training

Configuration Management

- ISO and IEEE CM Standards will be employed
- System developmental and production baseline changes will require Government approval
- System changes will be rolled up into lots instead of changes from unit to unit to provide for increased commonality
- Software development efforts shall use the NESI repository to store development environment and source code

Modularity and Openness

- TIP seeks to promote
  - System “Openness”
  - Tech Insertion
  - Innovation
- Varied methods to achieve this
  - Make maximum use of award and incentive fees
  - Separate Development and Integration

Next Steps

- ✓ Refine “Guiding Principles” for Program Managers
- ✓ Refine our POA&M for PEO-wide TIP implementation
- ❖ Identify candidate programs for TIP
- ❖ Assist Program Offices in implementing TIP processes
- ❖ Develop an assessment and reporting process

Today's Agenda

1530	Introduction	RADM(ret.) Wagner
1535	Welcome	RADM(s) Bachmann
1545	PEO C4I & Space	Andrew Cox
1630	**JPEO JTRS**	**Vic Popik**
1655	Open Q&A	All
1700	Informal Reception	All

Purpose

- Provide a comprehensive update on the JTRS program which includes:
  - Progress achieved to date
  - Current program direction and way forward

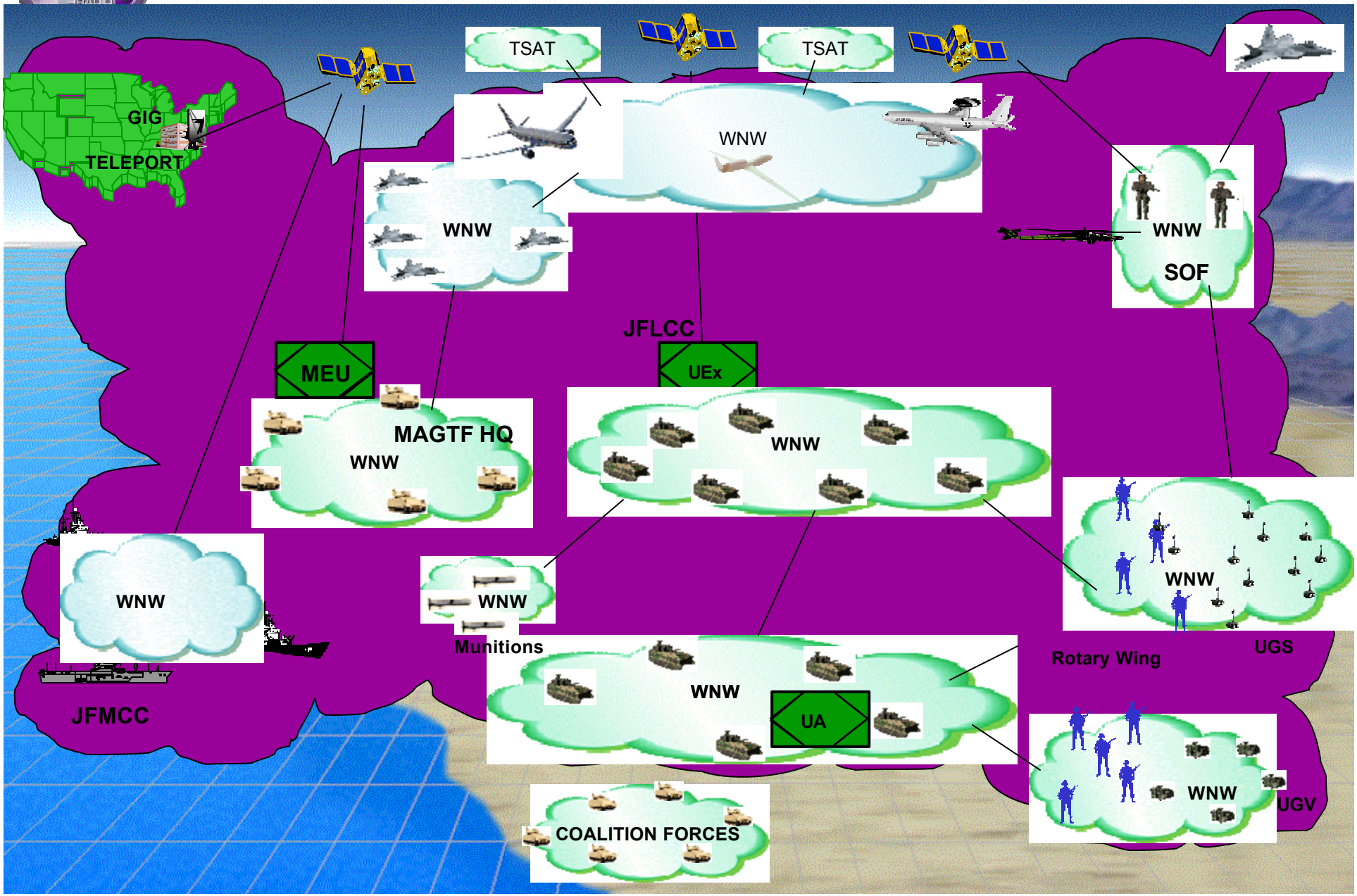
JTRS Background

- Program purpose: develop, produce, integrate and field a family of interoperable, digital, modular, software-defined radios that operate as nodes in a network to ensure secure wireless communications and networking services for mobile and fixed forces.
  - JTRS products envisioned to receive, transmit, route and relay voice, data and video
- JTRS program was initially established based on the need to:
  - Replace legacy radios
  - Address key shortfalls in battlefield communications capabilities
  - Bring separate Service-led radio programs together into a joint development effort
- Program rationale/requirements also included over time the need to:
  - Enable mobile wireless ad hoc networking
  - Enable information superiority through network centric warfare and communications interoperability across the service components and Allied forces
  - Ability to port and reuse software on a variety of hardware configurations – Reduce life cycle cost
- Individual developments for specific war fighting platforms were called Clusters

Recent History of JTRS "Turn Around"

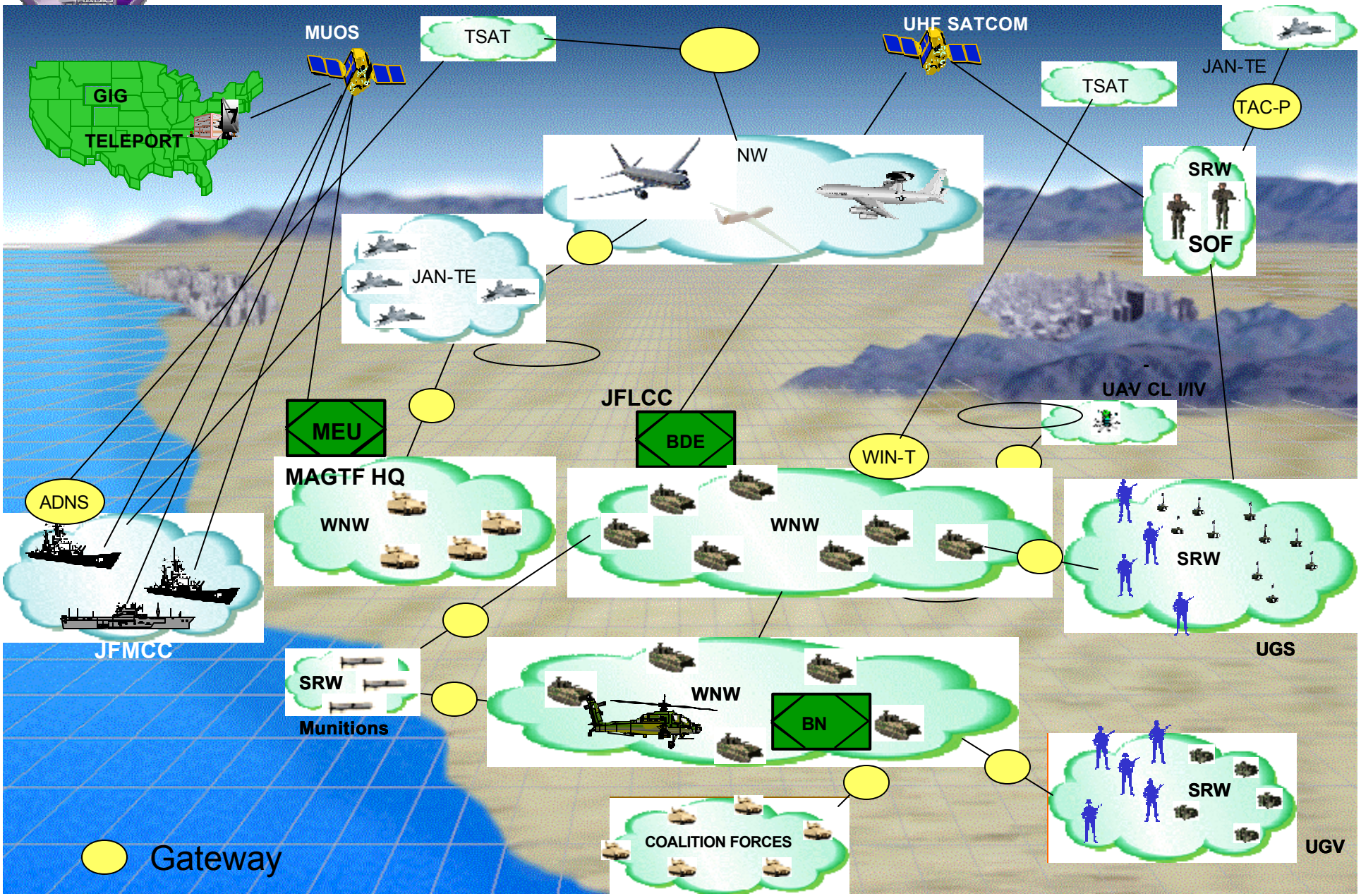
- JTRS ADM 4 February 2005 issued by USD(AT&L):
  - Establishment of a Joint PEO to manage JTRS program and realigned all existing JTRS programs and budgets under the new JPEO
  - Directed an assessment of all JTRS programs to examine cost, schedule and technical risks
    - JPEO reported results beginning with Cluster 1 on 6 May 05 and completed all assessments by July 05
- Major assessment result findings:
  - Program initiated as a legacy radio replacement, but evolved into a network centric radio program without re-baselining program impacts
  - Requirements significantly changed and never stabilized
  - Complexity of information assurance (IA) problems not anticipated
  - Programs executing at high technical, schedule and cost risk:
    - Flawed acquisition strategies ("big bang" vice incremental)
    - Unrealistic schedule demands resulted in unexecutable program
    - Inability of Contractor/Govt teams to manage cost, schedule and requirements growth
    - Lack of an enterprise approach to acquisition and system engineering practices

Original JTRS Networking Vision



JTRS Current Requirement

Increment 1

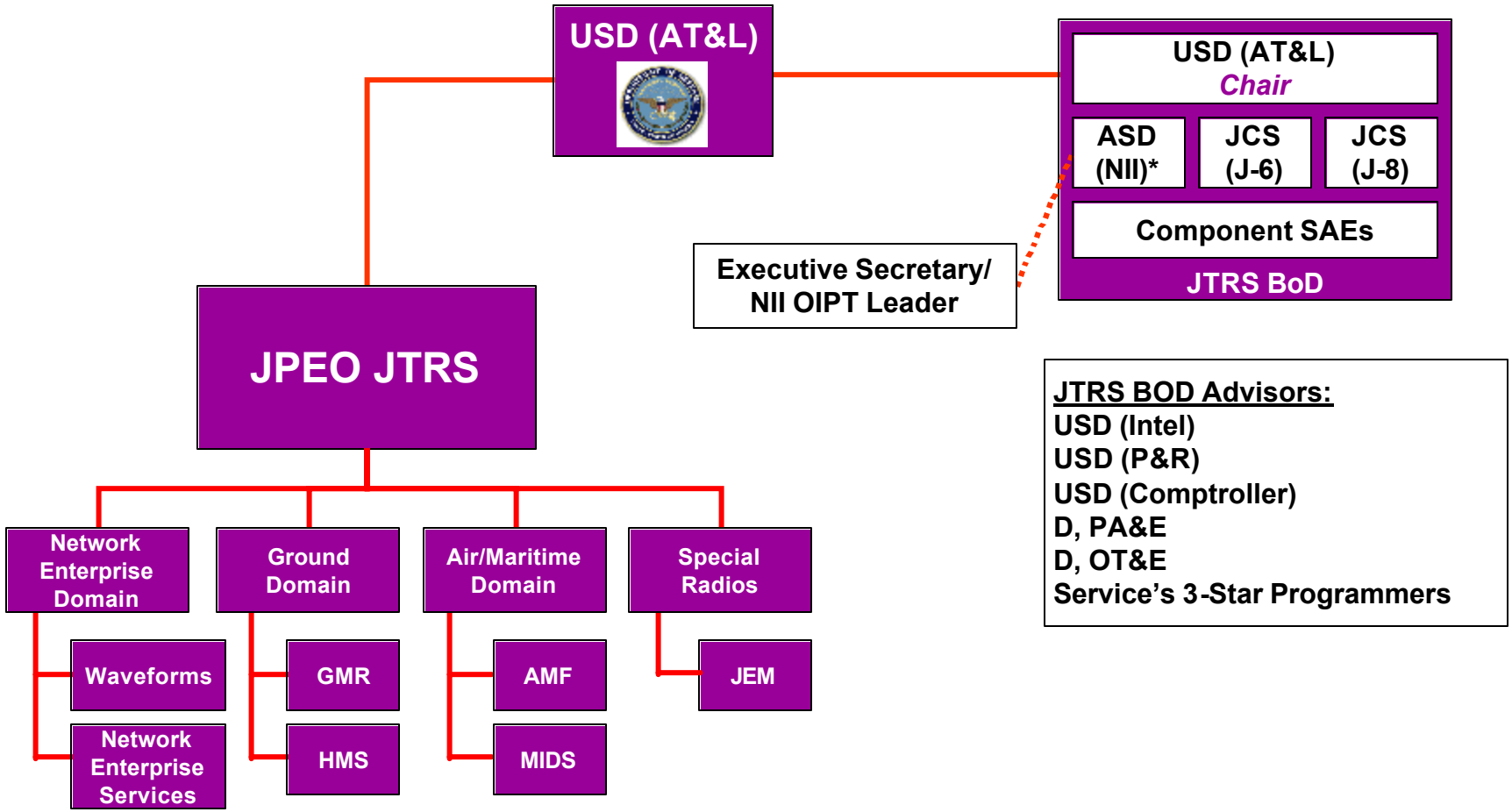


Achieving Interoperable Tactical Edge Networks

- **Interoperability of networking waveforms is essential**
  - Information must flow seamlessly: end-to-end through all domains
  - Common protocols needed to treat information consistently throughout the battlefield
  - Network managers need a common view of overall operating picture
  - Gateways to connect cross-domain unique waveforms and networks
- **Common networking services**
  - Quality of Service
  - Data Delivery Prioritization
  - Support of Multimedia Traffic (Data, Voice, Video)
  - Meeting Data Packet Completion & Delay Requirement
- **Common Network Management**
  - Monitor Network Performance
  - Configure Network
  - Provide for Network Information Security
  - Provide Fault Management services

Common set of Networking Services and Network Management essential to network interoperability

JPEO JTRS Reporting Authorities



JTRS BOD Advisors:
USD (Intel)
USD (P&R)
USD (Comptroller)
D, PA&E
D, OT&E
Service's 3-Star Programmers

* = IAW DoD Directive 5144.1, dated 2 May 2005, Subject: Assistant Secretary of Defense for Networks and Information Integration/DoD Chief Information Office (ASD (NII)/DoD CIO)

Leadership Direction for JTRS
July-November 2005 JTRS Mini-DABs

- 28 July:
  - Presented Initial Replan based on full ORD 3.2 set of requirements
  - DAB directed JPEO to characterize potential trade space areas to potentially reduce/prioritize requirements where possible
- 17 August
  - JTRS capability attributes & trade space direction requested
  - DAB directed JCS/JPEO to develop capability option development (report out in November) based on capability attributes and trade space direction
- 11 October
  - Presented JCS/Service “threshold” capabilities matrix (increment 1)
    - Developed as part of the JCS/Service Requirements Working Group
  - 7 program excursions with preliminary ROMs reduced to 3 options by JCS/JPEO
- 22 November
  - JPEO presented increased fidelity with respect to Options 1-3 (cost/schedule/risk)
  - JPEO provided overarching JTRS acquisition approach/principles

JTRS Increment 1 – Draft ORD 3.2.1

TABLE F-1: INCREMENT 1 SERVICE PRIORITIES: Waveform to Form Factor								
	Army		Marine Corps		Air Force		Navy	
Priority	Waveform	Form Factor*	Waveform	Form Factor*	Waveform	Form Factor*	Waveform	Form Factor*
1	JTRS NW: SRW	UGS/IMS - SFF H (2) IMS/UGS - SFF A (1) NLOS CLU - SFF J (2) UAV CL I/IV -SFF D (1)	JTRS NW: SRW	MP (2)	JTRS NW: JAN-TE	MIDS (4)	JTRS NW: JAN-TE	MIDS (4)
2	JTRS NW: WNW	Veh (4)	EPLRS	MP (2)	Link 16/TADIL-J	MIDS (4)	Link 16/TADIL-J	MIDS (4)
3	JTRS NW: SRW	Veh (4)	SINCGARS ESIP	MP (2)	Link 16/TADIL-J	ARC-210 (2)	Link 16/TADIL-J	ARC-210 (2)
4	SINCGARS ESIP w/INC	Veh (4)	UHF SATCOM DAMA (or MUOS)	MP (2)	MUOS	ARC-210 (2)	MUOS	ARC-210 (2)
5	EPLRS	Veh (4)	JTRS NW: WNW	Veh (4)	SRW	Veh (4)	MUOS	19" rack (4)
6	SINCGARS ESIP	NLOS – SFF J (2)	EPLRS	Veh (4)	SRW	ARC-210 (2)		
7	JTRS NW: SRW	LW - SFF C (1) LW - SFF I (1) LW - SFF B (2)	SINCGARS ESIP	Veh (4)	SRW	MP(2)		
8	EPLRS	LW - SFF B (2) LW - SFF I (1)	UHF SATCOM DAMA (or MUOS)	Veh (4)	SRW	HH (2)		
9	SINCGARS ESIP	LW - SFF B (2) LW - SFF I (1)	JTRS NW: SRW	UGS/IMS – SFF H (2) IMS/UGS SFF A (1) UAV SFF D (1)	SRW	SFF B (2)		
10	JTRS NW: WNW	ARC-210 (2)	JTRS NW: SRW	LW - SFF C (1) LW - SFF I (1) LW - SFF B (2)	JTRS NW: WNW	Veh (4)		
11	JTRS NW: SRW	ARC-210 (2)	SINCGARS ESIP	LW - SFF B (2) LW - SFF I (1)	JTRS NW: WNW	ARC-210 (2)		

JTRS Increment 1 – Draft ORD 3.2.1

TABLE F-1: INCREMENT 1 SERVICE PRIORITIES: Waveform to Form Factor								
	Army		Marine Corps		Air Force		Navy	
Priority	Waveform	Form Factor*	Waveform	Form Factor*	Waveform	Form Factor*	Waveform	Form Factor*
12	Link 16/TADIL J	ARC-210 (2)	EPLRS	LW - SFF B (2) LW - SFF I (1)	UHF SATCOM DAMA (or MUOS)	Veh (4)		
13	HF	Veh (4)	HF	MP (2)	UHF SATCOM DAMA (or MUOS)	MP (2)		
14	UHF SATCOM DAMA (or MUOS)	Veh (4)	HF	Veh (4)	EPLRS	MP (2)		
15	JTRS NW: SRW	MP (2)	JTRS NW: WNW	ARC-210 (2)	EPLRS	HH (2)		
16	SINCGARS ESIP	MP (2)	JTRS NW: SRW	ARC-210 (2)	EPLRS	SFF B (2)		
17	EPLRS	MP (2)	Link 16/TADIL J	ARC-210 (2)	SINCGARS ESIP	Veh (4)		
18	HF	MP (2)	JTRS NW: SRW	HH (2)	EPLRS	Veh (4)		
19	UHF SATCOM DAMA (or MUOS)	MP (2)	SINCGARS ESIP	HH (2)	SINCGARS ESIP	MP (2)		
20	JTRS NW: SRW	HH (2)	EPLRS	HH (2)	SINCGARS ESIP	HH (2)		
21	SINCGARS ESIP	HH (2)			SINCGARS ESIP	SFF B (2)		
22	EPLRS	HH (2)			HF	Veh (4)		
23					HF	MP (2)		

Number in ( ) represents number of channels

Notes:

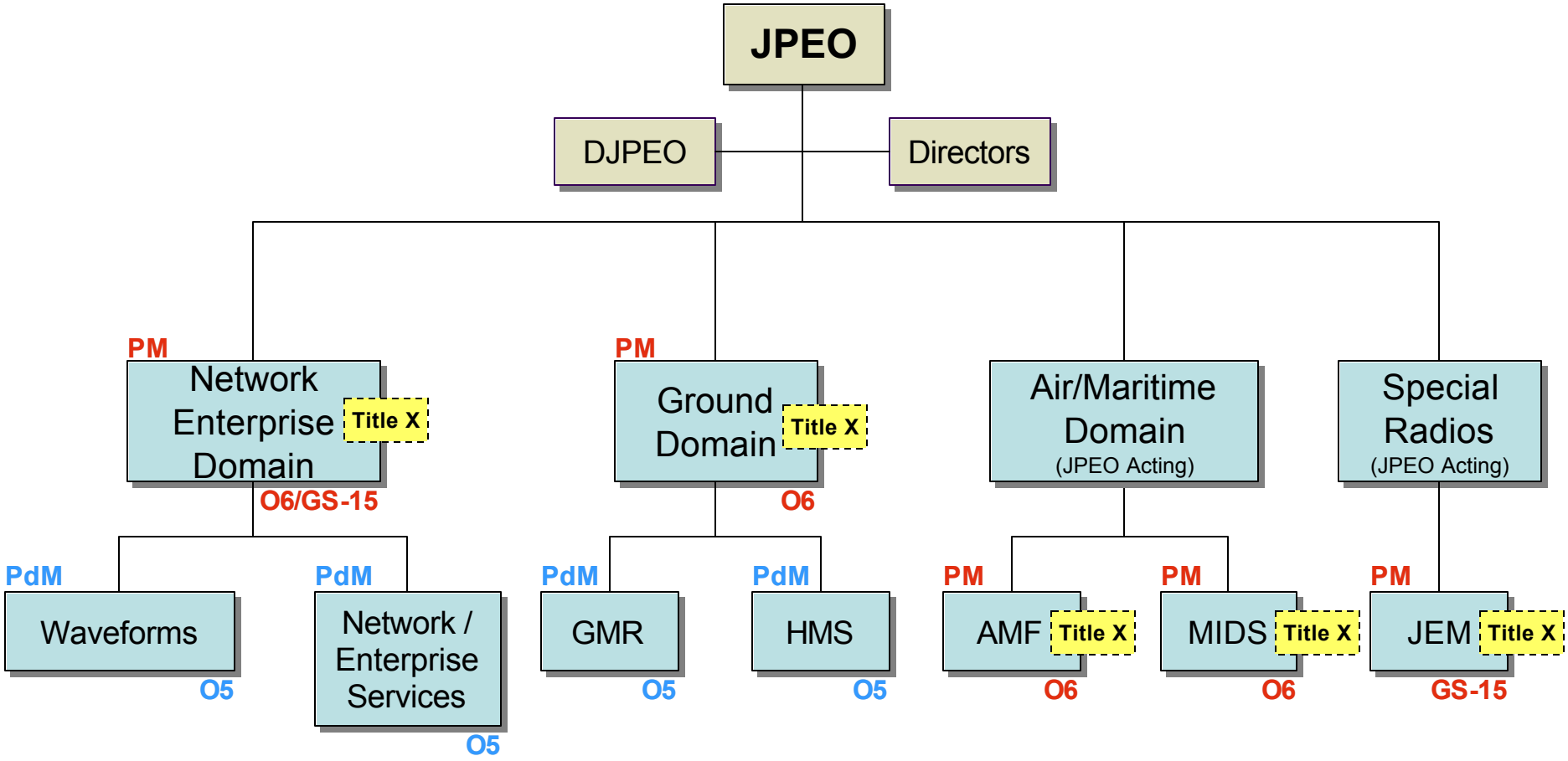
1) Each Form Factor and Waveform will have a lead Service and Platform and will follow JTRS Enterprise guidance for portability and interoperability.

2) Integration of the JTRS radios into Service platforms is understood to be a Service cost.

JPEO JTRS Strategic Goals

- ✓Assess the status of the total program
- ✓Develop and gain approval for realistic requirements and budget going forward
- Implement an acquisition strategy to achieve the requirements within the budget
- Create an enduring Joint organization that balances Service equities with DoD enterprise needs
  - Effective JTRS governance structure
  - Single point of responsibility (JPEO JTRS)
  - Direct report to USD AT&L (not to a Service SAE)

JPEO JTRS Organizational Structure



Near Term Actions

- Obtaining authority to proceed on reduced-requirement Program
  - ADM implementing Option 3 (Increment 1)
- Developing Budget Strategy to:
  - Fully fund JTRS programs to execute Increment 1
  - Make funding adjustments to support POM 08 submission
- Clarifying financial support process for JPEO
- Refining current governance structure for greater effectiveness
- Honing acquisition approach and implementation

JPEO Acquisition Approach

- Institute an Enterprise approach to developing and acquiring JTRS capabilities
  - Enterprise approach to JTRS systems engineering
  - Drive collaboration across other JTRS communities of interest
  - Assure POM submissions and execution years budgets are accurate and integrated
- Partner with the Joint Staff to stabilize requirements baseline
  - Recognize budgets established several years ago cannot possibly satisfy evolving requirements
  - Realign available funding to meet most important requirements
- Move from high to moderate risk programs
  - Facilitate delivery of incremental capability
- Broaden industry involvement
  - Incentivize industry to *deliver* capability
    - Interim drops of GPR software
    - Competition for H/W
  - Leverage commercial technologies where feasible
    - RFI (Nov 05 discussions)

Today's Agenda

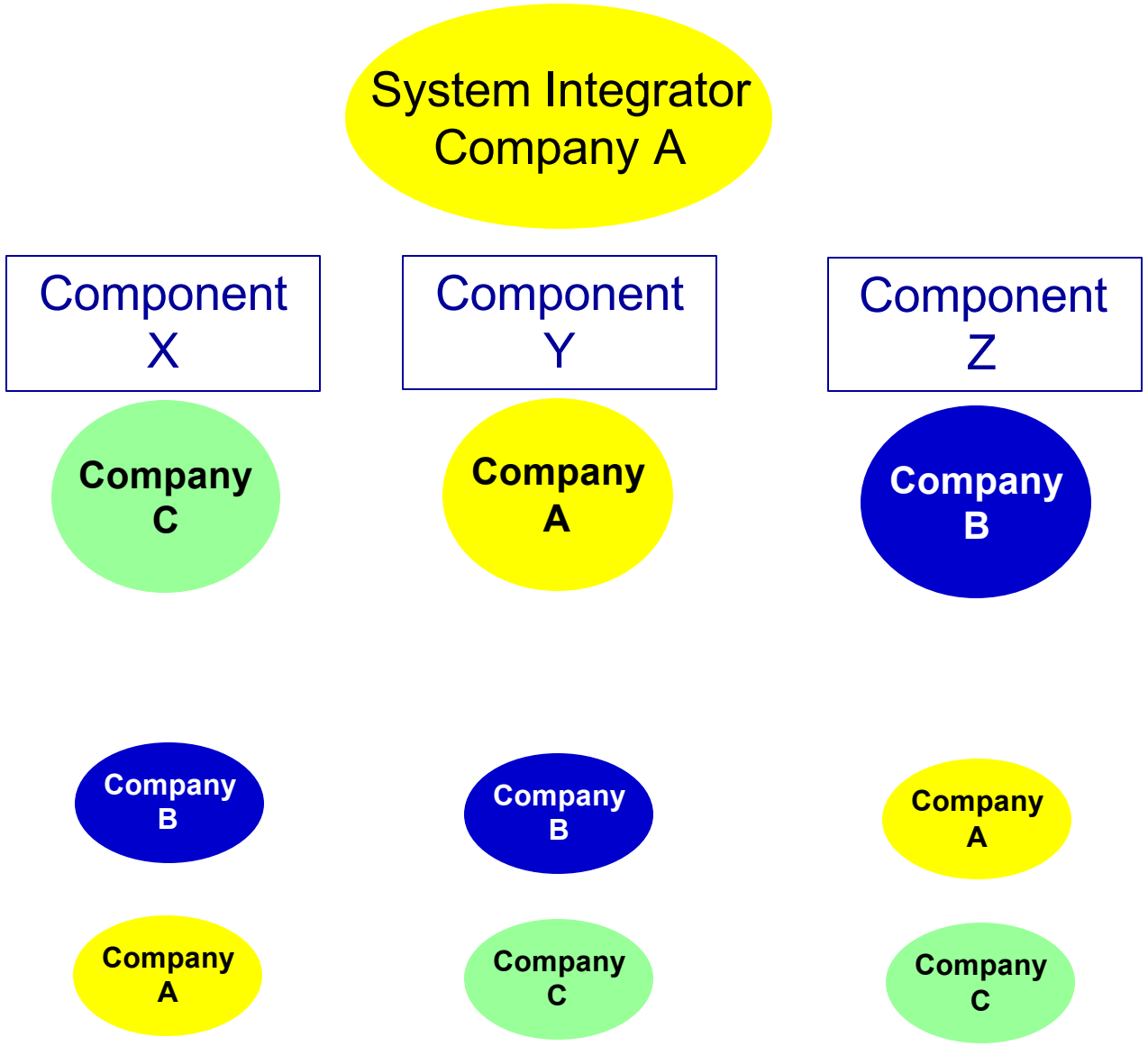
1530	Introduction	RADM(ret.) Wagner
1535	Welcome	RADM(s) Bachmann
1545	PEO C4I & Space	Andrew Cox
1630	JPEO JTRS	Vic Popik
1655	**Open Q&A**	**All**
1700	Informal Reception	All

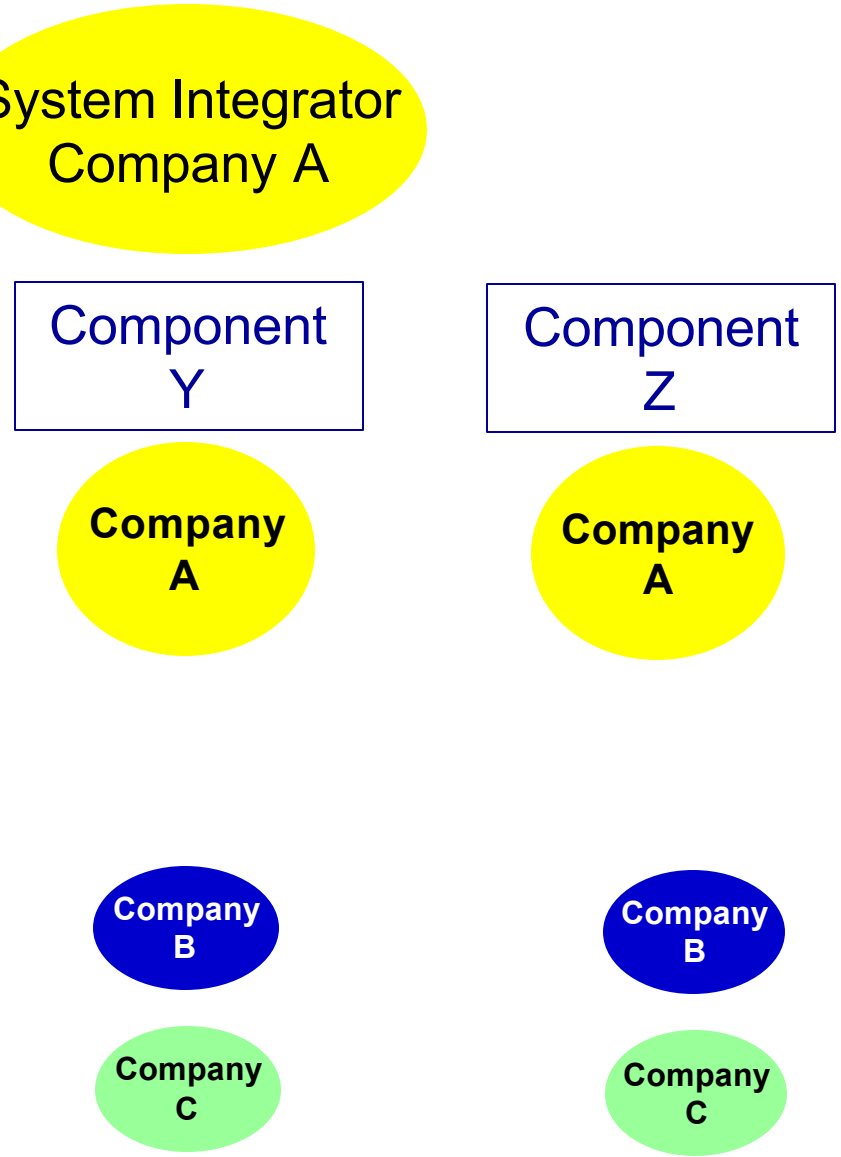
BACK UP

Acronyms

ASN RD& A	Assistant Secretary of the Navy, Research, Development & Acquisition
ATO	Authority to Operate
C4I	Command, Control, Communications, Computers, & Intelligence
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance,and Reconnaissance
CDRL	Contract Data Requirements List
CLIN	Contract Line Identification Number
CM	Configuration Management
DCID	Director Central intelligence Directive
DIACAP	DoD Information Assurance Certification and Accreditation Program
DID	Design Interface Document
DITSCAP	DoD Information Technology Security Certification and Accreditation Process
DOD	Department of Defense
FAR	Federal Acquisition Regulation
FRP	Full-Rate Production
GFE	Government-Furnished Equipment
GWOT	Global War on Terrorism
HSI	Human Systems Integration
IATO	Interim Authority to Operate
IEEE	Initial Environmental Examination
IETM	Interactive Electronic Training Manuals
ISO	In Support Of
ITAR	International Traffic in Arms Regulations
IV & V	Independent Verification & Validation
LSI	Lead Systems Integrator
MDA	Maritime Defense Awareness
NDI	Non-Developmental Item
NESI	Network Centric Enterprise Solution for Interoperability
PEO	Program Executive Office
PMW	Program Manager, Warfare
POA & M	Plan of Action & Milestones
QDR	Quadrennial Defense Review
RDT & E	Research, Development, Test, & Evaluation
S & T	Science & Technology
SHIPMAIN	Ship Maintenance
SSAA	System Security Authorization Agreement
SSC	SPAWAR Systems Command
T & E	Test & Evaluation
TIP	Transition to Industry Primes
USC	United States Code
WMD	Weapons of Mass Destruction

Typical TIP


System Integrator
Company A
Component X
Component Y
Component Z
Company C
Company A
Company B
Company B
Company A
Company B
Company A
Company C
Company C


System Integrator
Company A
Component
X
Component
Y
Component
Z
Company
A
Company
A
Company
A
Company
B
Company
C
Company
B
Company
C
Company
B
Company
C